TABLE 1

| Share of high speed lines by technology as of December 31, 2003 |   |     |         |
|---|---|-----|---------|
| State   | Cable modem<br>share of high<br>speed lines |     | Other   |
| Arizona   | 74%   | 16% | 10%     |
| Colorado  | 54%   | 36% | 9%      |
| Idaho   | N/A   | 30% | N/A     |
| Iowa  | 68%   | 25% | 6%      |
| Minnesota   | 65%   | 28% | 7%      |
| Montana   | N/A   | 49% | N/A     |
| Nebraska  | 75%   | 15% | 10%     |
| New Mexico  | 52%   | 40% | 8%      |
| North Dakota  | 41%   | 44% | 14%     |
| Oregon  | 61%   | 31% | 8%      |
| South Dakota  | 39%   | 41% | 21%     |
| Utah  | N/A   | 47% | N/A     |
| Washington  | 55%   | 39% | 6%      |
| Wyoming   | N/A   | 34% | N/A     |
| Total: Qwest's 14 states  | Over 57%                                    | 31% | Over 6% |

Source: FCC, High-Speed Services for Internet Access: Status as of December 31, 2003, Table 7 (June 2004).

### TABLE 2

| Qwest Asymmetric xDSL share of high speed lines by state as of December 2003 |          |  |
|--|----------|--|
| Arizona  | REDACTED |  |
| Colorado   | REDACTED |  |
| Idaho  | REDACTED |  |
| Iowa   | REDACTED |  |
| Minnesota  | REDACTED |  |
| Montana  | REDACTED |  |
| Nebraska   | REDACTED |  |
| New Mexico   | REDACTED |  |
| North Dakota   | REDACTED |  |
| Oregon   | REDACTED |  |
| South Dakota   | REDACTED |  |
| Utah   | REDACTED |  |
| Washington   | REDACTED |  |
| Wyoming  | REDACTED |  |
| Total: Qwest's 14 states   | REDACTED |  |

Source: FCC, High-Speed Services for Internet Access: Status as of December 31, 2003, Table 7 (June 2004); Rex Morse Declaration ¶ 5.

#### **DECLARATION OF RICK MACINNES**

My name is Rick MacInnes. I am the Qwest DSL Sales Manager in Nebraska. In this position I am responsible for DSL penetration in the state, and for managing activities associated with DSL launches and deployments. I have been employed by Qwest for over 26 years.

I live in Omaha's Rockbrook neighborhood, in the Doll's Rockbrook plat, within District 66 School District. The neighborhood is in what is known as Distribution Area ("DA") 316802.

Qwest deployed DSL in the remote terminal ("RT") in my neighborhood on April 27, 2004. We had [REDACTED] Qwest customers in the neighborhood, who were thus prospects for DSL. As of October 15, 2004 only [REDACTED] of the existing Qwest customers purchased Qwest DSL. I do not know how many residences there are in the neighborhood; accordingly this disappointing penetration rate does not reflect the fact that an unknown number of Cox customers in the neighborhood did not buy Qwest DSL.

Just a few days before we deployed DSL in my neighborhood, Cox representatives went door to door promoting Cox's cable modem service. I was at home when a Cox representative came to our house. My wife answered the door, but neglected to get a copy of the Cox handout, telling the Cox representative that I was a Qwest employee. I then called a neighbor down the street and asked the neighbor to collect a copy of the handout for me.

Attached is a true and correct copy of the flyer that my neighbor gave me in response to my request.

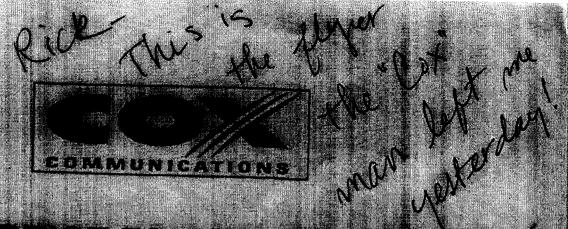
#### REDACTED-FOR PUBLIC INSPECTION

I certify that the foregoing is true and correct to the best of my information and

belief. Executed on October 22, 2004.

Rick MacInnes

**CAMPAIGN BOOT** 



## 1/2 PHICE FOR SIX MONTHS!

MO UP-FRONT FEES, NO OBLICATIONS, & NO CONTRACTO ASKERON YOU CAN RECEIVE A FREE INSTANTANTON

TELEPHONE:

CÀBI P

KREP YOUR SAME PHONE NUMBER Call Waiting, Caller Id, Call Weiting Id 3-Way Calling, Speed Dista Busy Line Rectal & Call Forwarding

Channels 1 - 21
Ask about our Digital, HBO, Showtime and
Chanax
Entertainment on Demand

No Phone Lines, No Busy Signal 50 Three Feath: than 58K Del G **\$\$**9499

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ANDEX FUNCTIONS PRICE: 100.00 - STEVENTI PARABOTI FLAVAVALUES

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YOU MUST CALL YOUR NEIGHEOITHEOD REFERENCE OF

CHAD MARSHALL

REDACTED-FOR PULIC INSPECTION

#### **DECLARATION OF REX MORSE**

- My name is Rex Morse. I am a Lead Network Planning Engineer employed by Qwest Corporation. I have been employed by Qwest Corporation for 25 years.
- I prepare the FCC Form 477—Local Competition and Broadband Reporting ("FCC Form 477") for Qwest Corporation for each state in which Qwest Corporation conducts business as an ILEC. Gregory Smith, in the Public Policy Department, provides direction and guidance in this effort.
- I developed the data for Part I: Broadband, line I-1 "Asymmetric xDSL", column (a) "Total one-way and two-way (full) broadband lines and wireless channels" by extracting xDSL product quantities from the billing system. The xDSL product count includes the quantities for all Universal Service Order Codes ("USOCs") that provide xDSL service to end users plus the USOCs that lease just the xDSL channel to a reseller. Included in this count are lines provided as UNEs, or line sharing, and also lines provided for resale, whether to CLECs or to ISPs such as EarthLink or AOL. Official Services, i.e., any lines Qwest Corporation provides for its own use, are excluded from the count. Thus, the data reported on line I-1, column (a) reflects all Asymmetric xDSL lines, including lines provided to resellers, as well as those directly billed to end users by Qwest.
- 4. The billing records that I used are kept in the course of Qwest's regularly conducted business activity. It is Qwest Corporation's regular practice to keep these billing records in a manner that allows one accurately to extract product quantities.

5. As of December 31, 2003, Qwest Corporation reported the following quantities of Asymmetric xDSL lines, on line 1-1, column (a) of FCC Form 477:

| State        | Number of lines |
|--------------|-----------------|
| Arizona      | REDACTED        |
| Colorado     | REDACTED        |
| Idaho        | REDACTED        |
| Iowa         | REDACTED        |
| Minnesota    | REDACTED        |
| Montana      | REDACTED        |
| Nebraska     | REDACTED        |
| New Mexico   | REDACTED        |
| North Dakota | REDACTED        |
| Oregon       | REDACTED        |
| South Dakota | REDACTED        |
| Utah         | REDACTED        |
| Washington   | REDACTED        |
| Wyoming      | REDACTED        |

I declare under penalty of perjury that the foregoing is true and correct. Executed

on October 28, 2004.

2
REDACTED-FOR PUBLIC INSPECTION

| DECLARATION OF BRAD HU | CHE | CS |
|------------------------|-----|----|
|------------------------|-----|----|

- 1. My name is Brad Hughes. I am an analyst employed by Qwest Services

  Corporation. In this position my responsibilities include the analysis of
  telecommunications industry trends and developments. I have been employed by Qwest
  (or its predecessors) for 24-plus years.
- 2. The purpose of this declaration is to describe the advantages that cable modem providers have in responding to competitive pricing from DSL.
- 3. As a competitive analyst I subscribe to the services of a number of providers that compete with Qwest. One of those is Comcast cable modern service.
- 4. Prior to August 6, 2004 I paid approximately \$45 for Comeast's cable modern service. On August 6, 2004, I called Comeast and said that I was thinking of changing to Owest's DSL service.
- 5. The Comcast employee responded that Comcast would beat the Qwest offer of \$26.99 by discounting my existing service 50% so that I would have cable modem service for \$24.99 for one year.
- 6. In June, 2004 Qwest conducted a survey of customers who had recently disconnected Qwest DSL service. A true and correct copy of the results is attached. As shown in the results of this survey, many consumers who left Qwest for another provider would have stayed with Qwest had Qwest been able to meet the new provider's competitive offer.
- 7. I declare under penalty of perjury that the foregoing is true and correct. Executed on October 28, 2004.

Drad Hughes

## **DECLARATION OF BRAD HUGHES**

#### **ATTACHMENT**

**REDACTED** 

#### **ATTACHMENT 1**



JOHN HARING & HARRY M. SHOOSHAN

March 1, 2002

#### 1. INTRODUCTION

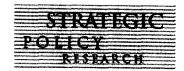
In this proceeding, the Commission undertakes a long-overdue review of its regulatory governance of ILEC provision of retail broadband services. This review is timely given that the Commission's current rules harm competition, discourage deployment of broadband facilities and deprive customers of innovative broadband applications. The Commission cites its experience in implementing the market opening provisions of the 1996 Telecommunications Act and the birth of broadband services as the specific motivations for its review. What that experience plainly discloses are failures to promote facilities-based competition and to afford ILECs an investment-friendly regulatory environment for service innovation and deployment of new, economic welfare-enhancing technological capabilities.

"If it moves, regulate it," is not good economic policy to promote development of the new "new thing." The irony in the case of broadband telecommunications is just how lacking the putative "market-power" grounds for regulation are. The notion that power in the provision of narrowband service (power that is regulated and subject to effective erosion as a result of the 1996 Act and technological innovation from unregulated competition) justifies regulation of broadband service entails a logical non sequitur. In economic terms, a firm can hardly dominate a market it is barely in, especially one in which its technology (i.e., DSL), in general, precludes it from supplying, let alone restricting, the marginal unit of output—the sine qua non for exercise of market power and dominance.

7979 OLD GEORGETOWN ROAD 7<sup>TH</sup> FLOOR BETHESDA, MARYLAND USA 20814-2429 +1.301.718.0111 FAX - +1.301.215.4033 EMAIL - spri-info@spri.com WEBSITE: www.spri.com

<sup>\*</sup>John Haring & Harry M. Shooshan are principals in Strategic Policy Research. Mr. Shooshan formerly served as Chief Counsel to what is now the Telecommunications Subcommittee of the U.S. House of Representatives. Dr. Haring formerly served as Chief Economist of the Federal Communications Commission and as Chief of the Commission's Office of Plans & Policy.

## ILEC Non-dominance in the Provision of Retail Broadband Services



Similar reasoning applies to the market for broadband services provided to large business customers.

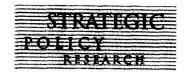
The anomaly the Commission confronts is that it asymmetrically regulates the non-dominant suppliers in broadband. In 1984, the FCC would presumably have had considerable difficulty trying to rationalize a regulatory regime in long distance that subjected MCI and Sprint to the full panoply of regulation while leaving AT&T largely unregulated. But that is, in essence, just what it is doing in broadband today. The problem is, as noted, that asymmetrical regulation is stifling the very competition that supplies the predicate for reliance on "the market" to produce good economic results. The Commission rationalizes its non-regulation of cable providers, in the face of prima facie evidence of economic dominance in the provision of "mass-market" broadband services, based on the potential effectiveness of inter-modal competition. But its current regulation of ILECs constrains the competition that purportedly justifies its light-handed regulation of cable's monopoly power.

The Commission asks how it "can best balance the goals of encouraging broadband investment and deployment, fostering competition in the provision of broadband services, promoting innovation, and eliminating unnecessary regulation." That balance can be easily accomplished for, in truth, there are no economic tradeoffs among these objectives. It is not as if fostering competition requires sacrifices in terms of promoting innovation or eliminating unnecessary regulation. This is a case where elimination of unnecessary regulation—a worthy objective of its own—will also produce each of the other desired results (viz., broadband investment and deployment, competition and innovation).

The Commission's *Notice* also notes a perceived tension between pursuit of the enumerated objectives and regulation of market power. This tension does not in fact exist or pose any genuine economic tradeoff requiring optimization by the Commission, because the ILECs do not possess market power in broadband services that would justify dominant carrier regulation.

In this paper, we follow the methodology prescribed by the Commission to adduce evidence that indicates that Qwest certainly does not possess "individual market power" in the supply of retail broadband services, the economic criterion the Commission properly specifies to denote "dominance" for purposes of assessing the need for regulation. Lack of dominance, in turn, implies that current ILEC broadband regulation is a case of "rules in search of a rationale." Moreover, such regulation actually undermines the results the Commission claims

<sup>&</sup>lt;sup>1</sup> NPRM at ¶ 7 (emphasis added).



to seek (investment, competition, innovation, elimination of unnecessary regulation, etc.).

#### 1.1. IDENTIFICATION OF RELEVANT PRODUCT MARKETS

As the Commission's *Notice* properly recognizes, customer preferences define economically relevant product markets. The fact that arable land can produce both corn and tomatoes does not place corn and tomatoes in the same product market; supply-side substitutability may possess implications for analysis of market power,<sup>2</sup> but does not connote demand-side substitutability. Analysis of demand-side substitutability is the standard approach to market definition, consistent with economic theory<sup>3</sup> and enforcement of competition policy by the antitrust authorities.<sup>4</sup>

The evidence on demand-side substitutability we provide here indicates that customers regard various broadband communications services as substitutes for one another, but do not regard narrowband "dial-up" services as close substitute alternatives. There is a clear "chink in the chain" of substitutes as between broadband and narrowband services, but not among various broadband alternatives. This implies that these two types of services do not trade in the same economically relevant product market.

Whether it makes analytical sense to further divide the market depends on several additional considerations. Most notably, when different customer classes possess different sets of alternatives they perceive as closely substitutable for one another, the dimensions or boundaries of the economically "relevant" product market may differ as among the different customer classes. The economically relevant product market is the set of services perceived to be close substitutes for one another. When different sets of services are perceived by different sets of customers to be close substitutes, the definition or boundaries of the product market, relevant for, say, an assessment of market power, are different. For example, if customer A possesses additional or different alternatives than

<sup>&</sup>lt;sup>2</sup> Thus the fungibility of arable land in cultivation of different crops limits the exercise of economic power in the market for any single crop.

<sup>&</sup>lt;sup>3</sup> In economic theoretic terms, the ability profitably to raise price by restricting market supply (*i.e.*, to exercise market power) presumes a less than perfectly elastic product demand, implying the existence of some perceived limitations on product substitutability.

<sup>&</sup>lt;sup>4</sup> See, e.g., Section 2 ("Product Market Definition") of the U.S. Department of Justice, Antitrust Division, Merger Guidelines (1992). The Guidelines (Section 2.12) note that a variety of circumstantial evidence can be utilized to infer substitutability including evidence of buyers' perceptions and considerations, particular price movements and evidence of sellers' perceptions about product substitutability.



customer B, the relevant product market for customer A is broader (or different) than that for customer B; in particular, it includes the extra (or different) substitute alternatives.

This type of consideration indicates that the Commission should distinguish two relevant product markets for analysis of competition in retail broadband telecommunications services: a large business customer market for broadband services, such as ATM and frame relay; and a "mass market" for broadband telecommunications services, other than to large business users (viz., residential and small & medium-sized business customers).

The former market can be fruitfully analyzed separately from the markets for dedicated transmission facilities that are used in broadband networks. Moreover, while the transmission facilities utilized to enter/exit the ATM/frame-relay "cloud" are available from a number of different sources, nothing in this proceeding will relieve ILECs of their obligation to offer dedicated transmission facilities at regulated retail rates. This combination of competitive and regulation-conditioned offerings precludes any leveraging of control over access into control over "cloud" offerings.

In the latter market (viz., the complement set of "mass-market" users), the services supplied by various providers all easily and/or functionally substitute for one another. These include the broadband service offerings of ILECs, cable companies, CLECs and DLECs, satellite companies and terrestrial wireless Internet access providers. There is again virtually no grounds to buttress a claim of ILEC dominance in provision of these productive functionalities.

Neither of these product markets includes narrowband Internet access, because neither set of customers regards such access as a close substitute for broadband access.<sup>5</sup> Narrowband access is generally perceived as qualitatively inferior, and is unsuitable for many applications (e.g. downloading of large files that may, increasingly, contain musical or video content). At the same time, empirical studies indicate little if any actual cross-elasticity of demand between narrowband and broadband services.<sup>6</sup>

<sup>&</sup>lt;sup>5</sup> Thus, in *Merger Guideline* terms, end users would not substitute one for the other to a quantitatively significant extent were relative prices to change minimally.

<sup>&</sup>lt;sup>6</sup> For example, Hausman, Sidak and Singer concluded, using different model specifications and measurement techniques, that "[b]roadband Internet access is a separate relevant market for competitive analysis and for antitrust purposes." Their statistically estimated coefficient for the price of narrowband access was "essentially zero" and "nowhere near statistical significance." See "Cable Modems and DSL: Broadband Internet Access for Residential Customers," American Economic Review: Papers and Proceedings (May 2001) at 304.



#### 1.2. EMPIRICAL EVIDENCE ON DEMAND-SIDE SUBSTITUTABILITY

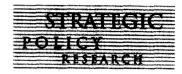
Recent customer survey data supports the existence of a relevant product market that includes all "mass market" broadband services. For example, a Strategis Group survey conducted in October 2001 (Broadband Users: Cable vs. DSL, 2002) indicated that broadband users would be willing to consider different types of fixed wireless as alternatives to DSL and cable modem [at 91-92]. Another survey conducted by the Strategis Group (Broadband Users: Cable vs. DSL, January 2001) shows that 8 percent of broadband users would be willing to switch between cable modem and DSL services for a discount of \$5 on their monthly bill, another 24 percent for a discount of \$10, and an additional 28 percent for a discount of \$15 [at 75].

Survey data also supports the exclusion of narrowband "dial-up" service from the broadband markets. Broadband generally appeals to users for whom the perceived value is high relative to the (incremental) costs entailed because of extraordinary consumption and/or work-related utility derived from the ability to transfer large computer files quickly and conveniently. For the more "run-of-the-mill" user, such greater speed and convenience are not sufficiently valued to warrant incurring the extra cost over dial-up service.

A Yankee Group 2000 TAF Survey found that broadband users typically go on line more frequently and stay on line for longer periods than dial-up users: 74 percent of broadband customers go on line seven days per week, whereas only 51 percent of dial-up customers do so. The Yankee Group 2001 TAF Survey finds that the frequency of access and time spent in each on-line session differ significantly as between broadband and dial-up subscribers. Sixty-three percent of broadband households go on line three times per day, almost twice the percentage of dial-up households (32 percent) that do so. Thirty percent of broadband households spend over two hours per on-line session, whereas only 12 percent of dial-up customers do so. The average monthly bill of Internet access for broadband households (\$40) is almost twice that of dial-up households (\$22).

The Yankee Group 2001 TAF Survey finds that "high-speed access" is the primary reason 63 percent of broadband households subscribe to broadband service and the second most important reason reported by another 15.9 percent of households. Transactional convenience (quick connection, ease of logging on, etc.) and freeing-up the phone line are other perceived benefits.

The Strategis Group survey conducted in October 2001 (Broadband Users: Cable vs. DSL, 2002) found that 99 percent of broadband users intend to continue the current service, with only 1 percent willing to go back to dial-up (at 74). 40 percent of current broadband households believe that "high speed access is well worth the money" and another 45 percent consider "high speed access a little expensive, but worth the money" [at 76-77].



In making their initial decision to acquire broadband, 80 percent gave very high priority to faster speed [at 24]. Other cited considerations include freeing up the phone line and always-on capability. In choosing between technologies, 86 percent of users cited "speed of performance" as the key choice-determining factor, followed by the technology's reputation and (only) then price [at 26].

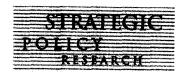
These results thus confirm that broadband users would switch among various broadband alternatives given price incentives to do so, but regard broadband functionality as distinct from dial-up.

The DOJ Merger Guidelines note that such evidence of sellers' perceptions about product substitutability can supply circumstantial evidence to infer substitutability. Similarly, third-party provided product information supplying consumers with comparative assessments can also yield insights about perceived product substitutability. Even our limited web search for information about different broadband service offerings identified numerous sources supplying comparative information about DSL and cable modem offerings. Customer satisfaction surveys routinely seek to acquire information from subscribers to both types of services and to assess the comparative merits of both types of service.

As noted in the text, The Strategis Group surveys also ask respondents about the potential substitutability of wireless alternatives to DSL and cable modem.

<sup>&</sup>lt;sup>7</sup> For example, Ameritech notes that DSL "technology provides instantly available high-speed Internet access over a dedicated telephone line," whereas "cable modems offer high-speed Internet access over a shared cable television line" to support its claim that cable modems afford compromised privacy and are unable to support virtual private networks. See www.ameritech.com/DSL new/content/0,5289,2,00.html. Cox Communications identifies "10 Myths About Cable and DSL Internet Technologies" including the myth that DSL Internet offerings areas fast as cable modem. See www.coxcable.com/highspeedinternet/compare Myths.asp. Whatever the merits of the claims being made, the point is that these suppliers view each other's offerings as substitutes. See also BellSouth, www.fastaccess.com/consumer/ www.verizon.com/foryourhome/dsl/whatisdsl/NLFDedicated blscfeatures.jsp; Verizon. AT&T: www.cablemodemhelp.com/compare.htm; Connection.asp; and www.comcastonline.com/whatisit.asp.

<sup>&</sup>lt;sup>8</sup> A February 2000 study by Parks' Associates compares the level of satisfaction with set-up and ordering for both DSL and cable modem subscribers. See www.broadbandweek.com/news/010122/010122\_telecom\_dsl.htm. A University of California survey similarly compares satisfaction levels between DSL and cable modem subscribers. See www.sims.berkeley.edu/~sinha/papers/NetActionReport\_7\_01.PDF.



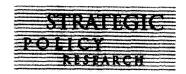
#### 2. GEOGRAPHIC MARKET BOUNDARIES

Delineation of geographic market boundaries in an antitrust context usually hinges on whether particular supply capabilities would become available in a given region were prices to rise slightly above competitive levels. A supplier may not historically have been active in a particular region, but if there are no economic constraints on its becoming active (say, a state licensing requirement or high per-unit costs of transportation), it should be included "in" the relevant market since its "proximity" constrains. Some leading commentators have remarked that issues surrounding geographic market definition may not be critical, assuming a proper competitive analysis is undertaken (i.e., one that takes adequate account of the power-constraining effects of potential market entry).

In telecommunications, somewhat different (and often practical) considerations have typically played a role in defining the geographic scope of markets relevant for addressing various regulatory issues. Thus, in contemplating the relevant scope of the service markets addressing the needs of large business customers, the Commission has often concluded that it is sensible to think in terms of a national market, notwithstanding that not all buyers and sellers operate in every region. The customers that different suppliers can effectively address and the suppliers that different customers can effectively exploit will vary in individual cases, but thinking in terms of a national orientation affords a practical means to come to grips with *generally prevailing* conditions, relevant for federal policy-making. Practically speaking, that orientation is usually going to give a reasonable answer regarding the availability of substitute alternatives in any particular set of circumstances. <sup>10</sup>

<sup>&</sup>lt;sup>9</sup> Thus, if geographic market boundaries are drawn narrowly, there will be significant "compensating" potential for entry from suppliers "outside" the market boundaries as specified; if boundaries are drawn broadly, such suppliers are "in" the market from the outset and their presence is reflected in market share statistics. The same conclusion regarding the presence or lack of market power may be reached simply by different means. See Landis and Posner, "Market Power in Antitrust Cases," Harvard Law Review (March 1981).

<sup>&</sup>lt;sup>10</sup> For example, MVPD markets are local, but national share statistics provide a reasonable proxy for *average* conditions prevailing in individual local markets. No doubt they overstate, say, the satellite share in some markets (*e.g.* in New Jersey) and understate it in others (*e.g.* in Montana), but in the absence of large variations provide a reasonable summary statistic for summarizing the generally prevailing market structure relevant for federal policy formulation.



We thus believe that the geographic market for provision of broadband services to large business customers should be regarded as national in scope. 11 This characterization can generally be relied upon to provide a reasonable portrayal of generally prevailing supply conditions, which is what is relevant for gauging the policy-relevant extent of competition.

We, similarly, would suggest that it is useful to adopt a "nationwide standard" for competitive analysis of provision of broadband services to mass-market users. While there may be some differences in supply conditions prevailing in different areas, most end users have a choice of at least two providers; cable modem service is, and will most likely always be, more widely available than DSL; and, on average, it is less expensive to upgrade cable plant than telephone plant to provide broadband services. Moreover, as in the case of the FCC's assessment of competition in local cable and MVPD markets, aggregate nationwide statistics provide reasonable evidence of conditions prevailing on average in particular demand settings and germane for federal policy formulation in the case of the "mass" market for broadband service. 12

## 3. LACK OF ILEC DOMINANCE IN RELEVANT MARKETS

The relevant economic standard for imposing dominant-firm regulation should not be simply the existence of "market power," but a finding of market dominance (viz., individual market power)<sup>13</sup> plus an additional finding that regulation is likely to do more good than harm. In markets for new product and service innovations, where the prospect of significant reward is what supplies the economic incentive to sink large and risky capital investments and operating

<sup>&</sup>lt;sup>11</sup> Indeed, given the extent to which business "globalization" has already occurred, for many enterprises even this hypothesized scope may be too narrow to embody adequately all relevant substitute alternatives and supply requirements. Given the low costs of transmission with packet technology, switching capabilities can be located anywhere, thus supporting a broad geographic market definition.

<sup>&</sup>lt;sup>12</sup> In the case of cable and MVPD markets, the Commission infers *local* market conditions on the basis of national *average* statistics.

 $<sup>^{13}</sup>$  See Notice, ¶ 13. ("With the introduction of competition into former monopoly markets, the Commission recognized the benefits of streamlining regulation of carriers that lacked individual market power.")



flexibility supplies an important means for "building a market," <sup>14</sup> it is clear that any benefits of dominant carrier regulation are overshadowed by the attendant harm of such regulation.

"Individual market power," the Commission's entirely apposite term, means what it connotes—the power of an *individual* supplier to raise the market price and earn more than transitory profits, *i.e.*, ability profitably to restrict *market* output. Certainly a firm may possess market power and not be a dominant firm; indeed, the vast majority of firms in the economy possess at least a modicum of market power (in the sense of not being pure "price takers—as are, say, FCC Commissioners and Staff when they buy tomatoes or sell stock), but they can hardly be said to be dominant in economic terms.<sup>15</sup>

An economically dominant firm must be such a large player in the economically relevant market that it can restrict output at the margin to such a substantial extent that its output restriction cannot be effectively offset in timely fashion (i.e., sufficiently rapidly to make the restriction not economically worthwhile) by actual or potential competitors. Only in this case does it possess unilateral power to raise the market price and ostensibly make a profit from so doing.

ILECs are far from being in a dominant position in the relevant broadband service markets. While the alternatives large and non-large users can avail themselves of differ, in neither relevant market are ILECs in a position to exercise individual market power.

Large Business Market. In the market for provision of broadband services to large business customers, many other suppliers besides ILECs operate in the market and ILECs do not have a dominant share of the market. In addition, barriers to entry into this market are low since a large number of firms can provide the requisite switching capabilities. ILECs are thus non-dominant in the large business market for broadband services. Finally, the ability of competitors to offset a hypothetical output restriction is supplemented by regulation. The

<sup>&</sup>lt;sup>14</sup> Both the "old" and "new" theories of economic growth emphasize the prospect of reward as the engine of investment and wealth creation. The writings of Schumpeter and Romer provide respective illustrations.

<sup>&</sup>lt;sup>15</sup> See John Haring and Kathy Levitz, "What Makes the Dominant Firm Dominant?," FCC Office of Plans & Policy Working Paper Series, Number 25 (April 1989). ("Ultimately, if the only thing that prevents firm B (or C or D) from taking business from firm A is its (or their) willingness to quote a sufficiently low price, there is no economically relevant sense in which firm A can be said to be 'dominant'." Haring and Levitz go on to say, "...it is important to recognize that the regulatory rules that formerly made sense may no longer be justified. In particular, when no firm can be uniquely categorized as dominant, no asymmetric assignment of regulatory liabilities can be legitimately defended. A new market environment calls for new rules.")



special access transmission "paths" affording means of entry and exit to competitively provisioned virtual network "clouds" are offered at regulated rates and there is thus no ability to exercise market power to limit competition in broadband cloud provision.

Mass Market. In the mass market for broadband services, DSL is available to fewer households than cable modem, lags far behind cable modem (by about 1-2) in number of subscribers, and lacks the reach of emerging satellite alternatives. Given that investments in infrastructure by these other providers have already been sunk, there are low barriers to entry, i.e., expansion of service. Indeed, given the well-understood disabilities of existing DSL technology in terms of customer reach and other technical limitations, ILECs will, generally speaking, not even be in a position to offer the marginal unit of output to non-large users in any particular local market and, hence, not be especially well-positioned to withhold it. So, there exist competitive market constraints that discipline any putative ability on the part of ILECs to restrict market output.

#### 3.1. EMPIRICAL EVIDENCE ON LACK OF ILEC DOMINANCE

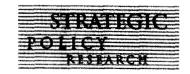
The relevant market for provision of broadband services to large users is served primarily by the large long-distance carriers (AT&T, WorldCom and Sprint) which are competitively advantaged by their unique ability to provide inter-LATA service throughout the country and thus to address the business requirements of large enterprise customers with numerous and disparate locations. They currently account for about 70 percent of the ATM/Frame Relay market.<sup>17</sup>

It is hard to see how any carrier can be characterized as exercising individual market power in this market—if anyone is dominant it must be the long-distance carriers taken collectively. It is particularly difficult to understand how the ILECs can be fairly characterized as dominant, given their minimal market presence and inability to compete with providers who can on their own offer nationwide

<sup>&</sup>lt;sup>16</sup> Cf. a representative local residential market where the cable operator and the ILEC networks pass by virtually all homes, and where the cable network can deliver service to all the homes passed and the ILEC network to, say, one-third of the homes due to the disabilities of DSL. In these circumstances, the ILEC cannot be dominant since it lacks the ability to restrict output to any of the homes—both those alternatively supplied by the cable operator and those to which it cannot provide DSL. The ILEC cannot exercise market power against the homes to which it cannot supply service. It is plainly senseless to talk about "restricting" output whose supply is infeasible in the first place. Under the assumed conditions, therefore, the cable operator might reasonably be characterized as economically dominant since it seemingly possesses the power to restrict output at the relevant market margin—power the ILEC does not possess.

<sup>&</sup>lt;sup>17</sup> See SBC Communications Inc., "Comments," In the Matter of Deployment of Broadband and Advanced Telecommunications Services, Docket No. 011109273-1273-01 (Dec. 19, 2001) at 24.

## ILEC Non-dominance in the Provision of Retail Broadband Services



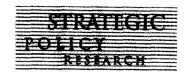
connectivity. Since Internet traffic traverses LATA boundaries and with few exceptions, the ILECs are excluded from carrying it, the ILECs are severely handicapped in meeting these needs. Not surprisingly, AT&T's third-quarter earnings report (October 23, 2001) states that the amount of ATM traffic over its network had doubled over the past 12 months, mostly due to Frame Relay to ATM Service Interworking ("FRASI").

Large users also have an increasing range of technology platforms from which to choose. Many large-enterprise customers continue to shift traffic away from legacy networks towards IP networks, both public and private. Results from a recent survey of IT/telecom Directors in 171 large companies (with over 500 employees) by the Yankee Group (U.S. Telecommunications Survey Results: It's Back to Business, January 29, 2002) shows the current breakdown of Network/IP traffic and expectations for 2003:

|                  | 2001 | Expectation for 2003 |
|------------------|------|----------------------|
| PSTN             | 7%   | 6%                   |
| Private Line     | 25%  | 21%                  |
| FR/ATM           | 28%  | 23%                  |
| Public Internet  | 15%  | 16%                  |
| IP VPN           | 12%  | 16%                  |
| Gigabit Ethernet | 11%  | 14%                  |
| Satellite        | 2%   | 4%                   |

A major technology breakthrough for the large business market is the extension of Gigabit Ethernet into the metro areas. In addition to highly competitive prices for bandwidth, it has the advantage of ease of implementation for corporate staff already skilled in managing Ethernet LANs. Several well-funded start-ups (Yipes, Telseon, Cogent, XO, FiberCity, GiantLoop) are offering services, each with a different business model, targeting certain kinds of customers provided they are within one-quarter of a mile of the core fiber infrastructure. Many of them lease dark fiber from companies such as Metromedia Fiber Networks to move quickly into many tier1 MSAs.<sup>18</sup>

<sup>&</sup>lt;sup>18</sup> The rapid increase in fiber availability from IXCs, CLECs and specialized dark fiber companies is documented in United States Telecom Association, Comments In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, CC Docket No. 96-98). In the short span of two years, Yipes achieved a presence in 21 MSAs, Cogent is currently in 12 and expanding to 20, and XO is in 60 MSAs.



In large part the recent success of point-to-point Gigabit Ethernet has been based on providing connectivity to Internet data centers and storage service providers and, relatedly, disaster recovery services.

The growth of IP networks and Gigabit Ethernet is part of an evolution of network topology in metropolitan areas, away from the ILEC central office and centered on "carrier hotels" (such as Equinix, and InterNAP) and private Network Access Points (NAPs), such as Palo Alto Internet Exchange (PAIX), where the IXCs, Internet backbone providers and Internet service providers exchange traffic via peering or transit arrangements. As more traffic is exchanged at these interconnection points, the different carriers, ISPs and large companies are effectively bypassing the ILECs' infrastructure.

In addition, the Internet backbone providers have been investing in Internet data centers in all the major MSAs to promote use of their backbones, in some cases, with acquisitions such as that of Digex and Intermedia by Worldcom. Worldcom's chief technology officer Fred Biggs is quoted by Eric Krapf<sup>19</sup> as saying that, rather than bringing the fiber to the customer, WorldCom wants to bring the customer to the fiber. Specifically, he says:

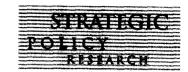
In many respects, data centers are really a different way of providing that last mile. Instead of bringing a DS3 or OC-3 from a central office to a customer's location, we now literally put [their data center] right on top of the backbone—it may be a piece of fiber from a server over to our backbone, dozens of feet inside a data center...The connectivity is good, but we are going to offer a whole class of customer service on top of that network and that's where the real value-add comes and what we focus on.

In addition to point-to-point services, Ethernet is expanding into enterprise wide area networks where it "promises to simplify configuration management by eliminating the need to configure multiple frame relay or ATM virtual circuits."<sup>20</sup>

When The Yankee Group surveyed large companies (U.S. Telecommunications Survey Results: It's Back to Business, January 29, 2002) and asked companies to identify their primary and secondary service providers, 40 percent of companies

<sup>&</sup>lt;sup>19</sup> See "Fiber Access: The Slog Continues," Business Communications Review (August 2001) at 41.

<sup>&</sup>lt;sup>20</sup> See Tony Rybczynski, "Optical Ethernet—Preparing for the Transition," Business Communications Review (October 2001) at 54.



identified AT&T as their primary provider, followed by Sprint (12 percent), Worldcom/UUNet (12 percent) with ILECs far behind.<sup>21</sup>

Mass Market: Turning to the mass market, various analyses indicate that slightly more than 80 percent of U.S. residence households now have access to cable modem service. On average, DSL's reach is slightly more than 40 percent<sup>23</sup> and, given its technical limitations, is probably capable of addressing on the order of 2/3 of total households in the limit. Estimates of market shares vary, but suggest that cable modem has about twice the share of DSL with about 65-70 percent of the market.

The Yankee Group 2001 Survey indicates that the suburban parts of the MSAs account for about 50 percent of all broadband users. These are precisely the areas where DSL suffers its greatest technical limitations due to the more typical long distances from ILECs' central offices; at the same time, this is naturally where cable companies have concentrated their network upgrades.

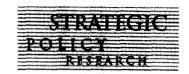
With this distribution of subscriber shares and comparative supply potential, it is hard to maintain that it is the low-share DSL offering whose suppliers "dominate." Cable's share and supply status is much more consistent with a

<sup>&</sup>lt;sup>21</sup> The market for Frame Relay was described this way in a recent article in *Fortune* magazine that focused on WorldCom: "[Frame Relay] is everywhere and the equipment is cheap,' said Don Dietrich, a St. Louis consultant whose firm…helps multinational corporations make telecombuying decisions. Eventually companies will shift their traffic to networks based on Internet technology, he says, but they haven't yet. The good news for WorldCom: it sells a lot of frame relay service. The bad news: Frame relay prices are falling by 5% to 10% a year." "WorldCom's Bad Trip", *Fortune* (March 4, 2002) at 94.

<sup>&</sup>lt;sup>22</sup> See J.P. Morgan Securities, Inc. and McKinsey & Company, Broadband 2001—A Comprehensive Analysis of Demand, Supply, Economics, and Industry Dynamics in the U.S. Broadband Market, at 43, Chart 25 (April 2, 2001) (percentage of households with cable modern access by year-end 2001 estimated at 82 percent); and National Cable Television Association, www.ncta.com/industry\_overview/indStat.cfm?indOverviewID=2 (Sept. 25, 2001) (percentage of households with cable modern access by year-end 2001 estimated at 83 percent).

<sup>&</sup>lt;sup>23</sup> It is our understanding that Qwest's DSL service is currently available to about 36 percent of the living units in its in-region territory.

<sup>&</sup>lt;sup>24</sup> "At the end of 2002, there are estimated to be roughly 7 million cable modem subscribers nationwide, in contrast to 3 million subscribers for DSL services." See "Bells Make a High-Speed Retreat from Broadband," The Wall Street Journal (October 29, 2001). Another estimate is 5.6 million cable modem subscribers compared to 3 million DSL subscribers. See FCC, In the Matter of Annual Assessment of the Status Competition in the Market for the Delivery of Video Programming, CS Docket No. 01-129, ¶ 44 (2002). During the fourth quarter of 2001, cable companies added about twice as many cable modem customers as the number of added DSL subscribers (542,000 versus 1 million-plus, latter based on numbers from the seven largest cable modem service providers).



dominant position. We note also that cable has the ability to expand its existing capacity for cable modem service by assigning additional bandwidth and/or by increasing the number of local "nodes" in its backbone network. Indeed, in our opinion, cable can more quickly—and cheaply—expand its capacity than can DSL providers.

Synthesis: Both large and small users (whether they are wholesale or retail customers) possess a variety of broadband supply alternatives that can and often do substitute for ILEC offerings. ILEC market shares in both the large and non-large user markets are inconsistent with market dominance and the ability to exercise individual market power. The existence of effective substitute alternatives implies low own-price demand elasticities for ILEC broadband offerings, again implying the inability to profit from any attempt to restrict market output. An expanding set of supply alternatives also belies any ILEC ability to restrict market output as it implies a high elasticity of supply. There is thus no basis to maintain that there is an ILEC dominance problem in broadband, whether manifested directly or via some alleged, but implausible, leveraging failure mode.

#### 4. HARMS OF REGULATION

Regulation, as is widely recognized, is at best an imperfect tool—not just in terms of its circumscribed ability to limit the adverse consequences derived from exercise of market power, but also in terms of its ability to produce or induce economically beneficial outcomes. The cure may well be worse than the disease particularly in circumstances where the malady is ephemeral and the disabilities of regulation are manifest—as in the instant case.

The Commission's famous, now defunct "Fin/Syn" rules provide an apt analogy.<sup>25</sup> These rules were an economically incoherent response to a perceived problem of broadcast network market power, but their maintenance became particularly difficult to rationalize when one of their unintended consequences was to limit growth of the most logical competitors—new networks aligned with movie studios (Fox, Paramount, Warner Brothers). Thus the unedifying spectacle of government regulations premised on control of market power having the plain and direct effect of maintaining whatever market power existed, by restraining the growth of competition.

<sup>&</sup>lt;sup>25</sup> See In re Review of the Financial Interest and Syndication Rules, MM Docket No. 95-39, Sections 73.659 (1995).



The Commission's miscategorization of ILECs as dominant suppliers of broadband services has the same kinds of adverse consequences. It limits the evolution of competitive alternatives to cable modem, competition that supplies the intellectual premise for light-handed regulation of cable system operators, notwithstanding compelling evidence of cable market power. It does so in two interrelated ways: (1) in subjecting ILEC offerings to a formal tariffing process, current regulations limit the expected economic returns ILECs can reasonably anticipate reaping and thus degrade ILEC incentives to invest and bear risk and potentially undermine their ability to get financing from capital markets, <sup>26</sup> and (2) by limiting ILEC flexibility to offer customized offerings and to partner strategically with customers (especially large businesses or public enterprises) to share financial risks and costs of developing innovative and strategically competitive applications, current regulations inhibit execution of efficient risk-sharing arrangements and minimization of risk, while simultaneously restricting the economic returns that can be realized.

Regulation necessarily imposes limitations on operating flexibility that thwart development of innovative transactional arrangements, inhibits the capacity to manage risk and, ultimately, restricts the growth of new service capabilities. The broadband "bandwagon" is stalled for want of innovative content/applications, but the transactionally simplistic models that underlie conventional tariffing models and arrangements have precisely the undesirable consequence of limiting creativity and the willingness to bear risk.

A fashion designer who operated under a "one-size-must-fit-all" constraint would presumably be hardput to recover the largely fixed design costs of a new couture collection. But this is what broadband regulation does—it limits the ILECs' flexibility to recover truly huge costs of broadband network development and deployment. If, in figurative essence, one size must fit all, it hardly pays to sink the required investments. But without the investments, the competition and innovation the Commission seeks cannot materialize. It would be one thing if these harms were offset by benefits, but they are not. Market power is not the problem—indeed, in the case of broadband and the ILECs, it is not even a problem; lack of a broadband "bandwagon" is the problem. The thrust of the Commission's policies should be to get the broadband "bandwagon" rolling, and deregulation is what that result requires.

<sup>&</sup>lt;sup>26</sup> These disincentive effects are exacerbated by the extreme unbundling and low-ball element pricing regime the Commission has heretofore judged reasonable and that is now the subject of a separate related proceeding.



#### 5. CONCLUSION

There is, in truth, no tension among the public policy objectives the Commission has identified—this is a case where eating the cake does not preclude one's still having it.

The implicit tradeoff embodied in the Commission's *Notice* is whether there is a sufficiently serious market-power problem associated with ILEC provision of broadband services to warrant imposition of what, given their gravely adverse consequences in terms of investment incentives, competition and innovation, are *very costly* regulatory controls.

Our analysis indicates that there is, in reality, no ILEC dominance problem in broadband. There exist lots of substitute alternatives in what we would suggest are two relevant product markets (large and mass market users) and barriers to service expansion are low in each of these markets, in part because substantial capital investments have already been sunk by a variety of different types of enterprises and as a result of service arrangements guaranteed by regulation. The irony is that the primary effect of current regulation is to thwart the development of effective competition to the currently dominant (and virtually unregulated) cable suppliers. There is thus very little public benefit that current ILEC broadband regulation can conceivably produce, but the harms it inflicts are manifest—less investment, less competition, less innovation, more regulation.

If the problem is insufficient competition, the answer cannot be regulation that thwarts competition. That is what current regulation does and, for that reason, it should be removed.

#### **CERTIFICATE OF SERVICE**

I, Joan O'Donnell, do hereby certify that I have caused the foregoing PETITION FOR

QWEST CORPORATION FOR FORBEARANCE PURSUANT TO 47 U.S.C. § 160(c)

[REDACTED - FOR PUBLIC INSPECTION] to be 1) filed with the Office of the Secretary

of the FCC and 2) served, via hand delivery, on the FCC's duplicating contractor, Best Copy and

Printing, Inc., at the following addresses:

Marlene H. Dortch Office of the Secretary Federal Communications Commission Room TW-A325 445 12<sup>th</sup> Street, S.W. Washington, DC 20554

Best Copy and Printing, Inc. Portals II Room CY-B402 445 12<sup>th</sup> Street, S.W. Washington, DC 20554

| Joan O'Donnell |  |
|----------------|--|

November 10, 2004